AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. A complete listing of the claims in this case, with their status, is shown below.

1-135. (Cancelled)

136. (Currently amended) A method comprising:

(a) contacting a candidate compound with a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to **amino acids 991 to 1,346 of** SEQ ID NO:2, wherein said GPCR is present on a cell or isolated membrane thereof;

(b) determining the ability of the compound to modulate said G protein-coupled receptor, and

(c) determining if said compound has an activity that inhibits hypertrophy in the heart.

137. (Previously presented) The method of claim 136, wherein element (c) comprises:

(i) contacting a compound which modulates the G protein-coupled receptor in (b) *in vitro* with a cardiomyocyte cell; and

(ii) determining whether the compound modulates hypertrophy of the cardiomyocyte cell.

138. (Previously presented) The method of claim 137, wherein the method comprises measuring size of the cardiomyocyte cell or expression of atrial natriuretic factor (ANF) by the cardiomyocyte cell.

139. (Previously presented) The method of claim 136, wherein element (c) comprises:

(i) administering a compound which modulates the G protein-coupled

receptor in (b) to a mammal; and

(ii) determining whether the compound modulates heart function in the mammal.

140. (Previously presented) The method of claim 139, wherein the mammal is a rat, mouse or pig model of heart disease.

141. (Previously presented) The method of claim 139, wherein element (ii) comprises evaluating congestive heart failure, congestive cardiomyopathy, heart hypertrophy, left ventricular hypertrophy, right ventricular hypertrophy or hypertrophic cardiomyopathy.

142. (Previously presented) The method of claim 136, wherein the method comprises identifying an inverse agonist of the receptor.

143. (Previously presented) The method of claim 136, wherein the method comprises identifying an antagonist of the receptor.

144. (Currently amended) A method comprising:

(a) contacting a candidate compound *in vitro* with a plurality of cardiomyocyte cells comprising a G protein-coupled receptor that comprises an amino acid sequence having at least 95% identity to **amino acids 991 to 1,346 of** SEQ ID NO:2;

(b) determining the ability of the compound to reduce a level of expression of the G protein-coupled receptor in said plurality of cardiomyocyte cells; and

(c) determining if said compound has an activity that inhibits hypertrophy in the heart.

145. (Previously presented) The method of claim 144, wherein element (c) comprises:

(i) administering a compound which reduces a level of expression of

the G protein-coupled receptor in said plurality of cardiomyocyte cells in (b) to a mammal; and

(ii) determining whether the compound modulates heart function in the mammal.

146. (Currently amended) A method comprising:

(a) administering a candidate compound to a non-human mammal having a genome that is modified to provide for expression of a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to **amino acids 991 to 1,346 of** SEQ ID NO:2; and

(b) determining if said compound has an activity that inhibits hypertrophy in the heart.

147. (Previously presented) The method of claim 146, wherein said genome is modified to provide for selective expression of the G protein-coupled receptor in cardiomyocytes.

148. (Currently amended) A cultured cardiomyocyte cell comprising a recombinant nucleic acid encoding a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity to **amino acids 991 to 1,346 of** SEQ ID NO:2.

149. (Currently amended) A non-human mammal having a genome that is modified to provide for selective expression of a G protein-coupled receptor comprising an amino acid sequence having at least 95% identity ~~of~~ **to amino acids 991 to 1,346 of** SEQ ID NO:2 in cardiomyocytes.

150. (Previously presented) A non-human mammal having a genome that is modified to provide for selective inactivation of a mammalian RUP40 gene in cardiomyocytes.

151. (Previously presented) A method of treating or preventing a heart disease selected from heart hypertrophy, left ventricular hypertrophy, right ventricular hypertrophy and hypertrophic cardiomyopathy, comprising administering to a mammal in need thereof a therapeutically effective amount of an inverse agonist or antagonist of the mammalian RUP40 G protein-coupled receptor or of a pharmaceutical composition comprising the inverse agonist or antagonist and a pharmaceutically acceptable carrier.

152. (Previously presented) A method of inhibiting cardiomyocyte hypertrophy, comprising administering to a mammal in need thereof a therapeutically effective amount of an inverse agonist or antagonist of the mammalian RUP40 G protein-coupled receptor or of a pharmaceutical composition comprising the inverse agonist or antagonist and a pharmaceutically acceptable carrier.

153. (Previously presented) The method of claim 152, wherein the method inhibits cardiomyocyte hypertrophy in congestive heart failure or congestive cardiomyopathy.

154. (Previously presented) The method of claim 152, wherein the method inhibits cardiomyocyte hypertrophy in post-myocardial infarction remodeling.

155. (New) The method of claim 136, wherein element (c) comprises:

(i) administering said compound to a mammal; and

(ii) determining whether said compound modulates cardiomyocyte hypertropy in said mammal.

156. (New) The method of claim 155, wherein element (ii) comprises evaluating cardiomyocyte hypertrophy in congestive heart failure or congestive cardiomyopathy.

157. (New) The method of claim 155, wherein element (ii) comprises evaluating cardiomyocyte hypertrophy in post-myocardial infarction re-modeling.